

CLAIMS

1. System for predetermining the operating threshold of a device surveying the radial deformation state of a tire, characterised by the fact that it comprises a closure member in equilibrium under the force due to the pressure of the tire chamber acting on a side and the force due to the environmental pressure together with the force of springs on the other side,
the section of the closure member on which the pressure and springs forces act, determines the pressure value inside the tire chamber capable of upsetting the equilibrium of the forces with a pressure value lower or identical than a pre-established threshold.
2. System as in claim 1, wherein the elastic push of the springs determines the pressure value inside the tire chamber capable of upsetting the equilibrium of the forces with a pressure value lower or identical than a pre-established threshold.
3. System as in claim 1, wherein a plurality of springs is provided, located in series and/or in parallel to define the full elastic forces co-operating to the equilibrium of the forces acting on the closure member.
4. System as in claim 1, wherein the used springs are Belleville washers.
5. System as in claim 1, wherein a first Belleville washer rests its external perimeter on the external part of a plate and its internal perimeter on the internal part of the plate, when the system is loaded.
6. System as in claim 1, wherein the other springs of the plurality push on the first one.
7. System as in claim 1, wherein a side of the chamber is delimited by the envelope, the wall distal from the tire, the gasket, the group and the gasket, while the other side is delimited by the diaphragm and the closure member integral with each others; when the device is loaded, the end of the housing of the group opens the closure member of a tire inflating valve, therefore, the tire pressure acts in said chamber coming through the chamber, the axial canalisation; a first gasket and a second gasket are used to prevent the connection between the chamber and the chamber .

8. System as in claim 1, wherein a chamber is delimited by the threaded end of the tube of the tire inflating valve, by a gasket located between said end and the upper wall of the threaded body, by the end of the housing of the group and by the gasket.
9. System as in claim 1, wherein the chamber is delimited by the diaphragm, the closure member and the gasket, the chamber communicating with the atmosphere through a hole, a chamber, the passage, the chamber and the chamber at environmental pressure.
10. System as in claim 1, wherein a spring is further provided acting on the closure member with a pre-load defined during the montage of the device.
- 10 11. System as in claim 1, wherein said spring is pre-loaded by an adjusting screw during the adjusting phase after the montage.
12. System as in claim 1, wherein a cylindrical self-closing closure member housed in the hole is pushed by the spring against the gasket to define a sealing and separate the chamber from the chamber when the movable closure member is unloaded.
- 15 13. System as in claim 1, wherein a passage connects the downwards portion of the gasket with respect to the chamber to the chamber, communicating with the atmosphere through passages in series with environmental pressure causing adjusted pressure losses; in case that the gasket leaks, the gas of the chamber reaches the atmosphere since it is subject to the pressure losses, therefore, the pressure in the chamber reaches a value higher than the atmospheric one; the pressure difference increases with the value of the loss until the equilibrium of the forces acting on the closure member upsets, the equilibrium being due to the increase of the pressure in the chamber .
- 20